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**Sent:** 4/22/2014 4:56:16 PM  
**To:** Hughes, Adam (IHS/PHX) [Adam.Hughes@ihs.gov]; Lorenz, Robert (IHS/PHX) [Robert.Lorenz@ihs.gov]; brad.rea@ihs.gov; lpuhuyesva@hopi.nsn.us; bbettenberg@homerlaw.com; Matson, Eric (IHS/PHX) [Eric.Matson@ihs.gov]; Lee, Bessie [Lee.Bessie@epa.gov]; Kerry Brough (kbrough@cox.net) [kbrough@cox.net]  
**Subject:** Summary of Hopi Tribal Council - HAMP Discussion - April 9, 2014

The following is a summary of the Hopi Tribal Council meeting discussion regarding the HAMP. The summary is intended to supplement Adam Hughes' handout, which was distributed to the participants. Editing was provided by Adam and Eric.

Participants:

Hopi Tribal Council Members  
Village Representatives...Phyllis Witsell and Gail Poley  
Hopi WRP...Lionel Puhuyesva  
BIA... Wendell Honanie  
EPA...Bessie Lee and John Hamilton  
IHS...Robert Lorenz, Adam Hughes and Eric Matson

HAMP Discussion:

**HAMP Background**

- A. The SDWA MCL for arsenic was lowered from 50 ppm to 10 ppm in 2001 and public water systems were required to comply by January 2006. Since the First and Second Mesa Villages are out of compliance, three of the Villages, Shungopavi, Sipaulovi and FMCV signed compliance plans with EPA Region 9 agreeing to provide arsenic complaint water by January 23, 2015. Mishongovi did not sign a compliance plan. All Villages will be a target for enforcement after January 23, 2015. We believe enforcement actions by EPA's enforcement staff may be mitigated if the villages sign the Village/Tribal Agreements and Village/HPUA Agreements and if funding for a major portion of the HAMP can be secured before the compliance deadline. EPA recently brought enforcement action against BIA for the three public water systems and fined BIA \$136,000 for non-compliance at Keams Canyon. EPA said there is no way to extend these compliance plans and that after January 23, 2015, administrative orders may be in place. While an administrative order may have adverse effects, it also may be helpful in securing federal funding for the HAMP.
- B. EPA regulates over 300 tribal water systems in Region 9, which includes tribes located in AZ, NV and CA, and about 1/3 were out of compliance for arsenic when the new rule was implemented. At the present time, about 85% of these systems are in compliance. Most of the public water systems regulated by the State of Arizona DEQ are also in compliance.
- C. EPA's drinking water enforcement staff will be visiting Hopi in late April. It would be advisable for Mishongnovi leadership to arrange to meet with enforcement staff to discuss EPA's enforcement plans and expectations and the village's commitment to participate in the HAMP.
- D. The Hopi Tribe has received a total of \$5.3 million from EPA and IHS for HAMP planning, design, environmental review, completion of a feasibility study and drilling two water supply wells. Drilling of the two wells is now complete and the first new well (well #2) has been test pumped and water quality sampling showed the arsenic level = 4.7 ppb. We expect the same high quality water from well #3. Each of the wells should be capable of producing over 400 gpm, which will fully meet the needs of the HAMP. These wells were drilled in an area where the N aquifer is well confined and is minimally influenced by other aquifers and formations. Water will flow through pipelines from the well field to First and Second Mesa, as shown on the handout.

- E. A draft PER was submitted to EPA, the Tribe and USDA in late 2012, and the HAMP was the preferred alternative. USDA had extensive comments, including a request for a more in-depth analysis of arsenic treatment in the villages. The revised PER and related planning documents are nearing completion. After analyzing treatment costs, the PER now shows that the HAMP with line power has a 25% lower net present value than the treatment alternative, and that the HAMP with generator power is essentially equal to the treatment alternative in terms of net present value. The HAMP with line power has the lowest estimated life cycle costs of the alternatives analyzed. Since the total HAMP budget is approximately \$20 million, we feel USDA funding of a major portion of the project is essential. Therefore, IHS and EPA recommend the Tribe apply for the USDA loan and grant funding at the earliest opportunity.
- F. In addition to the anticipated USDA funding, other funding may be available from the Tribe, HUD, BIA, EPA and IHS. The Tribe is the lead agency for coordinating and providing applications for USDA and other agency funding. The USDA funding would be loan and grant, with the maximum grant at 70%. It's understood the loan amount would need to be repaid by the users.
- G. There was a Council question about when the HAMP water would be available to the communities. While the EPA deadline for compliance is January 23, 2015, it's clear the HAMP would not be finished at that time. The HAMP startup is subject to number of factors, including funding availability. If USDA funds are available this year, the current schedule for completion of design and construction would result in completion and startup in 2018. It could be later if funds are not available this year. Other issues related to USDA funding are summarized below. After startup of the HAMP, full SDWA compliance will be after one year of sampling below the MCL.

#### **Items for Tribal Council Consideration**

- A. Village/Tribal Agreements and Village/HPUA Agreements. The Tribal Council passed a resolution in May 2013, which formed the HPUA and the Hopi Public Utility Commission. The agreements between the Tribe and Villages, which have been drafted for Council consideration by Bill Bettenberg, will need to be finalized before USDA provides construction funding. These agreements would confirm Village participation in the HAMP and acceptance of pipeline alignments. Finalizing agreements are subject to completion of HAMP operating cost estimates by IHS engineering consultant, Kerry Brough. The final operating cost estimates are nearly complete and operating costs are expected to be approximately \$500,000 annually at startup, if grid power is available from either APS or NTUA.
- There was a Council question about whether the villages are aware they will need to pay HPUA for water? Lionel, Bill and George Mace have been meeting with Villages, advising them of projected cost for HPUA water delivery, and this will continue. Some villages have been proactively preparing themselves for future HPUA rates by either establishing rates for current village water users or through increases to existing water rates. Water is and always has been "free", but the users need to pay for costs related to pumping, treatment, testing, compliance and maintenance.
  - Lionel had provided copies of the draft agreements to village CSA's. Council approval of the draft agreement will help expedite the process of reaching a final agreement with each of the villages.
  - The Village/HPUA agreements, also prepared by Bill, will allow the HPUA to access HAMP facilities for maintenance and serve as the basis for HPUA delivery of water up to and through a master meter to each of the villages and for Village payment for this water. The villages will be responsible for operating and maintaining their respective water distribution systems (i.e. existing systems on the Village side of the master meter) and customer billing within village areas. In the future, HPUA may offer to operate the distribution systems, at village discretion, but initially HPUA will focus on providing water to the villages as a wholesaler through master meters at each village.
  - The present Mishongovi and Sipaulovi water distribution systems are combined to some extent, leading to operating and billing issues. Councilman Yoyetewa said the village boards are starting to work on issues of mutual interest. Perhaps the future HPUA Director and IHS engineers can work with the village boards to design the Upper system and install metering so each village share can be determined and billed by HPUA.

- A Bacavi Councilman asked whether villages would be expected to “contribute” to project capital costs for building the HAMP? The Tribe is working on securing loan and grant funds for the total \$20 million capital costs. Villages would be expected to pay for USDA loan repayment, plus the routine operating costs for the HAMP. This would be quantified in the Village/HPUA agreements.
- Councilman Johnson asked for a detailed cost estimate for the HAMP, which has been provided. He also commented on Peabody Coal’s lowering the N aquifer water table, although this is not as significant since the coal slurry pipeline was abandoned. John Shomaker and Associates, has estimated that total withdrawals from the N aquifer result in lowering of the aquifer by about 3 ft per year, and since the static water at the HAMP well field is about 1200’, this would not have an adverse impact during the life of the HAMP.
- IHS recommended the Council review and finalize the Village/Tribal Agreements and Village/HPUA Agreements as soon as possible. IHS and EPA understand the agreements are on the Council agenda for later in April. As IHS completes the updated operating cost estimates we will plan to meet with Lionel and the villages to answer any questions about the project. EPA conducts monthly HAMP project planning and status reporting conference calls and the First and Second Mesa villages have been active participants. Summaries of the calls are emailed to all participants.
- Councilman Johnson stated the Tribe should support O&M costs and loan repayment for the HAMP, rather than expecting the villages to carry the load.
- Councilman Lamar agreed the Tribe should fund much of the capital costs, perhaps by repaying USDA loans directly.
- There was a question about the cost of replacing a HAMP well pump, which would be approximately \$30,000, while a booster pump replacement would cost about \$18,000. The life cycle for these pumps is generally 6-8 years. Pipe lines may have a useful life in excess of 70 years, and the wells approximately 40 years. Water storage tanks would need periodic repainting.

B. The Cost of Grid Power vs. Electrical Generated Power. The use of electrical generators at the well field, rather than grid power from APS or NTUA, would essentially double the annual cost of operating the HAMP water supply system. We recommend the Tribe get quotes from APS and NTUA and have drafted a letter to that effect for the Tribe’s review and approval.

- Councilman Johnson said there are still some Council issues with the potential for APS power. Right-of-way negotiations had been underway, but are now completed. Also there’s a question about power demands and costs for the proposed Tawa ‘ovi development.
- The Vice Chairman also stated the APS power line cost share will need to be determined, assuming both HAMP and Tawa ‘ovi are served. A Tribal meeting to consider this and other related development issues is planned for April 14.
- Councilman Mace said APS grid power should serve the wells and Tawa ‘ovi. Tawa ‘ovi will also have an additional cost for a substation. The Tribe’s power consultant has a cost estimate for these facilities, but it’s not yet public information.
- The Tribe has also met with NTUA regarding grid power for the area, although there may be a voltage consistency issue? Eventually the Tribe may take over operation of the power grid at Hopi, and preferred to obtain line power for the HAMP from APS, to stay with one homogenous grid at one voltage, as opposed to bringing NTUA power to the site, which may be at a different voltage.
- The actual cost of extending APS power to the well field is not known, although we understand it may be in the range of \$2 million. The Tribe would need to decide if this cost is part of the HAMP and if the Tawa ‘ovi development would share a portion of the cost.
- It was understood that the Chairman would be signing the quote request letter to APS for the HAMP, and would be forwarding the request for a quote to APS.
- The PER will proceed based on the understanding that a quote is being sought from APS and that electric line power is required for the HAMP to be successful.

C. Consider Evaluation of Potential for Integrating BIA Water Systems into the HAMP. A planning agreement has been drafted to include BIA/BIE in the HAMP planning process and to identify tribal and BIA funding for required

activities (i.e. amendments to the PER, Strategic Plan, Environmental Assessment, etc.). An interagency agreement has also been drafted and signed by BIA as a means of providing BIA planning funds to IHS. Both agreements are being reviewed by IHS attorneys. We anticipate it would take about 12 months to fully evaluate the potential and costs of adding BIA/BIE to the HAMP.

- EPA has suggested the Tribe move forward with the initial USDA-RD loan and grant application, without BIA/BIE, to show initiative in attempting to comply with the EPA designated January 2015 compliance deadline. This may help mitigate future EPA enforcement action.
- USDA has suggested the Tribe move forward with the initial USDA-RD loan and grant application, without BIA/BIE. If adding BIA/BIE is determined desirable, the Tribe can make a future funding request to address BIA properties.
- Possible advantages of adding the BIA/BIE water systems to the HAMP include having Interior share the capital costs and operating costs. This might reduce the village capital and operating costs, but not necessarily on a dollar for dollar basis, since some additional construction costs would be directly resulting from BIA/BIE water demand. For example a third new well could be required as well as pipeline upsizing. We estimate BIA/BIE systems would use 28-33% of the total water delivered by HAMP to First and Second Mesas.
- Possible disadvantages of adding BIA/BIE water systems to the HAMP may result if the Tribe were required to assume the loan burden for facilities constructed to serve BIA properties. We believe BIA/BIE would want all costs related to water service funded through additional USDA loans and repaid through service charges.
- Bill suggested that IHS attorneys talk directly to Interior attorneys if they have questions on the Interagency Agreement for planning. IHS is in the process of developing a Project Summary and MOA to include the agencies and the Tribe. By the time that document is fully executed, the Interagency Agreement will also be finalized.

D. Selection of a HPUA Director. IHS advocates for hiring of the HPUA Director as soon as possible. The Director would then have an opportunity to directly participate in the work with Villages, technical design of the HAMP, and liaison between the Tribe and IHS design team.

- Bill had recommended that IHS consider funding the HPUA Director position and also look at having an IHS engineer assigned to the Tribe as Director, at least during the design and startup phases of the HAMP.
- IHS headquarters was consulted on this topic following the meeting. IHS is not funded to provide Operation and Maintenance or Operation and Maintenance management of tribally owned facilities and the HPUA Director position is inherently linked to those activities. Additionally, the HPUA Director is inherently a tribal position and not an IHS position. IHS is available to provide technical assistance to whomever the Tribe ultimately hires for this position and can likely provide O&M equipment through future projects.

E. Possible HAMP Financial Partners. In addition to funding from the federal agencies previously mentioned and the \$2 million support from the Hopi Tribe, there are other potential financial partners.

- Wayne Taylor, Director of the Hopi Housing Authority, has been willing to consider providing funding support for the HAMP based on eligible HUD funded houses that will be served. This could lessen the USDA grant and loan amounts.
- The Vice Chairman asked if the HAMP would serve Tawa 'ovi? For Tawa 'ovi to be served by the HAMP, the Tribe would need to contribute funds, on behalf of Tawa 'ovi, towards the overall HAMP infrastructure. Capacity has not been specifically built into the HAMP to account for Tawa 'ovi's expected demands.
- Councilman Daniel Honanie asked why well #1, located within the Tawa 'ovi development area, is not being used for the HAMP? IHS and Lionel both stated the well was drilled for use during construction of the Turquoise Trail roadway and is not built to Hopi water code standards. The casing diameter is also too small and the maximum pumping rate is about 200 gpm, which is well below the desired rate for HAMP wells (300-400 gpm).
- If either of the above funding mechanisms are going to be considered in the PER, the Tribe will need to decide within the next several weeks.

F. Compilation of the USDA loan/grant application.

- IHS is finalizing the PER, EA and Strategic Plan relative to the Villages (i.e. Does not include evaluation of extending facilities to BIA properties). We expect to have these documents fully completed within the next 2-3 months. The Tribe will apply for the USDA grant/loan when all USDA requirements are in place, including site control, the above referenced agreements with the villages, and other legal, technical and procedural requirements.
- The Tribe is responsible for completing past-due annual audits and other legal and financial requirements of USDA. There is some question whether the USDA applicant will be the Tribe, the HPUA or a combination? Consultation with USDA on this question is advised.

**Action Items:**

Villages

Mishongnovi leadership arrange to meet with EPA enforcement staff to discuss EPA's enforcement plans and expectations and the village's commitment to participate in the HAMP.

Work with Tribe to assure site control issues are resolved and that project participation is assured.

Negotiate and sign the Village/Tribal and Village/HPUA Agreements

Hopi Tribe

Council approval of Village/Tribal and Village/HPUA Agreements

Tribe and Villages reach agreement on Village/Tribal and Village/HPUA Agreements

Complete all past due annual financial audits

Tribe get quotes from APS for power line extension to HAMP

Tribe to decide if the Tawa'ovi development is to be included in the HAMP and provide contributing funds on a pro-rata cost share basis, to offset the additional costs to the HAMP for the expected Tawa'ovi water demands and electrical loads.

Hire the HPUA Director as soon as possible

Approve \$2 million support from the Hopi Tribe

Decide if Tawa 'ovi and Hopi Housing Authority will contribute financially to the HAMP, before the PER is finalized

Determine if the HPUA can be the lead or only applicant for USDA funding (or will the Tribe cosign)

Apply for the USDA loan and grant funding at the earliest opportunity

IHS

Complete the PER/EA/Strategic Plan (without BIA facility consideration) and provide to the Tribe for USDA application in immediate future.

IHS to complete the updated operating cost estimates and will meet with Lionel and the villages to answer any questions about the project

Complete the BIA/BIE participation Project Summary and MOA to allow for evaluation of potential extension of HAMP facilities to BIA properties. The MOA will likely include as signatories the BIA, the Tribe, and IHS. Execute the Interagency Agreement pending approval of planning/MOA documents by IHS legal counsel.

EPA

Provide technical assistance to the Villages regarding water supply

Conduct monthly project coordination calls

Enforcement staff meet with Tribe and village leadership

John Hamilton, PE

EPA Engineering Consultant